

AMENDMENTS TO THE CLAIMS

Claims 1-40 (Canceled)

Claim 41 (Currently Amended): A transparent article comprising
a transparent substrate;

an optical coating comprising one or more layers on the substrate, where the one or more layers include furthest from the substrate a homogeneous outermost layer comprising amorphous silicon nitride; and

a protective coating on the outermost layer, wherein

the protective coating consists of

a scratch propagation blocker layer on the outermost layer, and

a layer consisting essentially of carbon on the scratch propagation blocker

layer; and

the scratch propagation blocker layer is a homogeneous layer comprising a material selected from the group consisting of

Ti, Si, Zn, Sn, In, Zr, Al, Cr, Nb, Mo, Hf, Ta and W;

oxides of Ti, ~~Si, Zn, Sn, In~~, Zr, Al, Cr, Nb, Mo, Hf, Ta and W;

nitrides of Ti, ~~Si~~, Zn, Sn, In, Zr, Al, Cr, Nb, Mo, Hf, Ta and W;

oxynitrides of Ti, ~~Si~~, Zn, Sn, In, Zr, Al, Cr, Nb, Mo, Hf, Ta and W; and

mixtures thereof.

Claim 42 (Previously Presented): The transparent article according to Claim 41,
wherein the substrate comprises a glass.

Claim 43 (Previously Presented): The transparent article according to Claim 42, wherein the substrate comprises a tempered glass.

Claim 44 (Previously Presented): The transparent article according to Claim 41, wherein the optical coating is a low-emissivity coating.

Claim 45 (Previously Presented): The transparent article according to Claim 41, wherein the optical coating is a tempered coating.

Claim 46 (Previously Presented): The transparent article according to Claim 41, wherein the optical coating contains at least one layer comprising Ag.

Claim 47 (Previously Presented): The transparent article according to Claim 41, wherein the fracture toughness of the scratch propagation blocker layer is higher than the fracture toughness of the outermost layer.

Claim 48 (Previously Presented): The transparent article according to Claim 41, wherein the scratch propagation blocker layer is from 2 to 8 nm thick.

Claim 49 (Currently Amended): The transparent article according to Claim 48, wherein the scratch propagation blocker layer comprises a material selected from the group consisting of oxides of Ti, Si, Zn, Sn, In, Zr, Al, Cr, Nb, Mo, Hf, Ta and W.

Claim 50 (Currently Amended): The transparent article according to Claim 48, wherein the scratch propagation blocker layer comprises a material selected from the group consisting of oxynitrides of Ti, Si, Zn, Sn, In, Zr, Al, Cr, Nb, Mo, Hf, Ta and W.

Claim 51 (Previously Presented): The transparent article according to Claim 41, wherein the layer consisting essentially of carbon is doped with nitrogen.

Claim 52 (Previously Presented): The transparent article according to Claim 41, wherein the layer consisting essentially of carbon consists of carbon and unavoidable impurities.

Claim 53 (Previously Presented): The transparent article according to Claim 41, wherein the carbon in the layer consisting essentially of carbon comprises at least one form of carbon selected from the group consisting of diamond-like carbon and graphite.

Claim 54 (Previously Presented): The transparent article according to Claim 41, wherein the layer consisting essentially of carbon is from 1 to 10 nm thick.

Claim 55 (Currently Amended): A transparent article comprising

a transparent substrate;

an optical coating comprising one or more layers on the substrate, where the one or more layers include furthest from the substrate a homogeneous outermost layer comprising silicon nitride; and

a protective coating on the outermost layer, wherein

the protective coating consists of

a scratch propagation blocker layer on the outermost layer, and

a layer consisting essentially of carbon on the scratch propagation blocker

layer; and

the scratch propagation blocker layer is a homogeneous layer 2 to 8 nm thick comprising a material selected from the group consisting of

Ti, Si, Zn, Sn, In, Zr, Al, Cr, Nb, Mo, Hf, Ta and W;

oxides of Ti, ~~Si, Zn, Sn, In~~, Zr, Al, Cr, Nb, Mo, Hf, Ta and W;

nitrides of Ti, ~~Si~~, Zn, Sn, In, Zr, Al, Cr, Nb, Mo, Hf, Ta and W;

oxynitrides of Ti, ~~Si~~, Zn, Sn, In, Zr, Al, Cr, Nb, Mo, Hf, Ta and W; and

mixtures thereof.

Claim 56 (Previously Presented): The transparent article according to Claim 55, wherein the substrate comprises a glass.

Claim 57 (Previously Presented): The transparent article according to Claim 56, wherein the substrate comprises a tempered glass.

Claim 58 (Previously Presented): The transparent article according to Claim 55, wherein the optical coating is a low-emissivity coating.

Claim 59 (Previously Presented): The transparent article according to Claim 55, wherein the optical coating is a tempered coating.

Claim 60 (Previously Presented): The transparent article according to Claim 55, wherein the optical coating contains at least one layer comprising Ag.

Claim 61 (Previously Presented): The transparent article according to Claim 55, wherein the fracture toughness of the scratch propagation blocker layer is higher than the fracture toughness of the outermost layer.

Claim 62 (Currently Amended): The transparent article according to Claim 55, wherein the scratch propagation blocker layer comprises a material selected from the group consisting of oxides of Ti, ~~Si, Zn, Sn, In~~, Zr, Al, Cr, Nb, Mo, Hf, Ta and W.

Claim 63 (Currently Amended): The transparent article according to Claim 55, wherein the scratch propagation blocker layer comprises a material selected from the group consisting of oxynitrides of Ti, ~~Si~~, Zn, Sn, In, Zr, Al, Cr, Nb, Mo, Hf, Ta and W.

Claim 64 (Previously Presented): The transparent article according to Claim 55, wherein the layer consisting essentially of carbon is doped with nitrogen.

Claim 65 (Previously Presented): The transparent article according to Claim 55, wherein the layer consisting essentially of carbon consists of carbon and unavoidable impurities.

Claim 66 (Previously Presented): The transparent article according to Claim 55, wherein the carbon in the layer consisting essentially of carbon comprises at least one form of carbon selected from the group consisting of diamond-like carbon and graphite.

Claim 67 (Previously Presented): The transparent article according to Claim 55, wherein the layer consisting essentially of carbon is from 1 to 10 nm thick.

Claim 68 (Currently Amended): A transparent article comprising
a transparent substrate;
an optical coating comprising one or more layers on the substrate, where the one or more layers include furthest from the substrate a homogeneous outermost layer comprising silicon nitride; and
a protective coating on the outermost layer, wherein
the protective coating consists of a scratch propagation blocker layer on the outermost layer; and
the scratch propagation blocker layer is a homogeneous layer comprising a material selected from the group consisting of
Ti, Si, Zn, Sn, In, Zr, Al, Cr, Nb, Mo, Hf, Ta and W;
oxides of Ti, Si, Zn, Sn, In, Zr, Al, Cr, Nb, Mo, Hf, Ta and W;
nitrides of Ti, Si, Zn, Sn, In, Zr, Al, Cr, Nb, Mo, Hf, Ta and W;
oxynitrides of Ti, Si, Zn, Sn, In, Zr, Al, Cr, Nb, Mo, Hf, Ta and W; and
mixtures thereof.

Claim 69 (Previously Presented): The transparent article according to Claim 68, wherein the substrate comprises a glass.

Claim 70 (Previously Presented): The transparent article according to Claim 69, wherein the substrate comprises a tempered glass.

Claim 71 (Previously Presented): The transparent article according to Claim 68, wherein the optical coating is a low-emissivity coating.

Claim 72 (Previously Presented): The transparent article according to Claim 68, wherein the optical coating is a tempered coating.

Claim 73 (Previously Presented): The transparent article according to Claim 68, wherein the optical coating contains at least one layer comprising Ag.

Claim 74 (Previously Presented): The transparent article according to Claim 68, wherein the outermost layer comprises amorphous silicon nitride.

Claim 75 (Previously Presented): The transparent article according to Claim 68, wherein the fracture toughness of the scratch propagation blocker layer is higher than the fracture toughness of the outermost layer.

Claim 76 (Previously Presented): The transparent article according to Claim 68, wherein the scratch propagation blocker layer is from 2 to 8 nm thick.

Claim 77 (Currently Amended): The transparent article according to Claim 76, wherein the scratch propagation blocker layer comprises a material selected from the group consisting of oxides of Ti, Si, Zn, Sn, In, Zr, Al, Cr, Nb, Mo, Hf, Ta and W.

Claim 78 (Currently Amended): The transparent article according to Claim 76, wherein the scratch propagation blocker layer comprises a material selected from the group consisting of oxynitrides of Ti, Si, Zn, Sn, In, Zr, Al, Cr, Nb, Mo, Hf, Ta and W.

Claim 79 (Previously Presented): The transparent article according to Claim 68, wherein the scratch propagation blocker layer is in contact with air.

Claim 80 (New): The transparent article according to Claim 41, wherein the scratch propagation blocker layer is from 2 to 8 nm thick; and the layer consisting essentially of carbon is from 1 to 10 nm thick.

Claim 81 (New): The transparent article according to Claim 41, wherein the scratch propagation blocker layer comprises a material selected from the group consisting of oxides of Zr; nitrides of Zr; oxynitrides of Zr; and mixtures thereof.

Claim 82 (New): The transparent article according to Claim 55, wherein the scratch propagation blocker layer comprises a material selected from the group consisting of oxides of Zr; nitrides of Zr; oxynitrides of Zr; and mixtures thereof.

Claim 83 (New): The transparent article according to Claim 68, wherein the scratch propagation blocker layer comprises a material selected from the group consisting of oxides of Zr; nitrides of Zr; oxynitrides of Zr; and mixtures thereof.